

Urban Retrofit: “On”, “In” or “With” city-regions?

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**Presentation to Retrofit 2012, Salford Quays,
Tuesday 24th January 2012**



1. SURF and Urban Retrofit



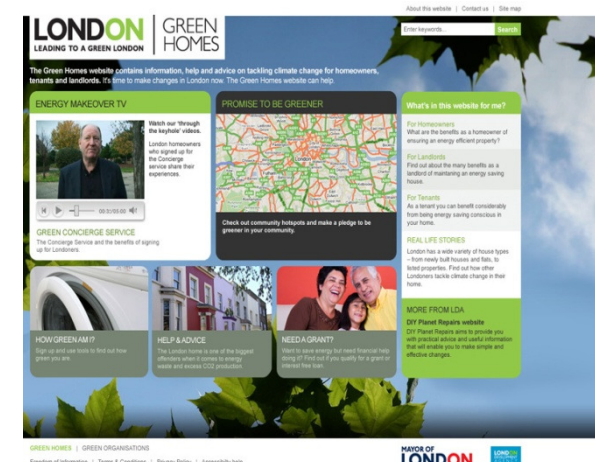
MISTRA URBAN FUTURES

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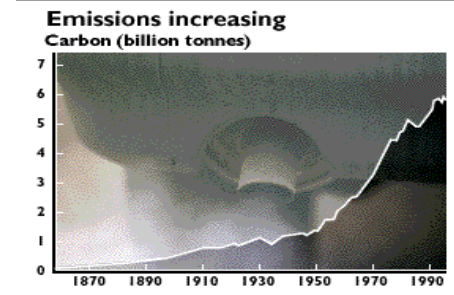
2. The Question of Urban Retrofit

- Systematic reconfiguration of socio-technologies of energy in the existing built environment and infrastructure.
- C/Rs searching for a fix to upscale retrofit.
- The dynamics of urban retrofit to critically explore
 - why retrofit has become an important focus in CRs;
 - characterising understanding of retrofit; and
 - the issues that this raises and gaps that need to be addressed.



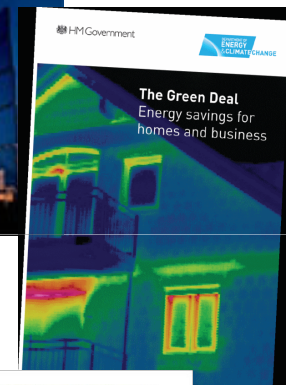
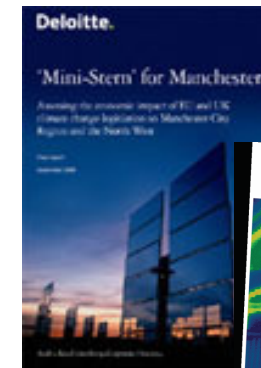
3. Low Carbon Urban Transition

- Ambitious carbon reduction aspirations - Carbon-based activity historically deeply embedded.
- Transition more than a technical challenge – socio-technical.
- Confluences of crises.
- Context for fundamental transformation or a continuation of existing practices?
- States active in shaping response to crises.



4. Urban Retrofit ON City-Regions

Characterising Retrofit	<ul style="list-style-type: none"> • 'Top down' • Address national priorities – local contexts • Techno-economic
Negotiating Retrofit	<ul style="list-style-type: none"> • National programmes – targets – schemes • Local policymakers – historical context
Elements of Retrofit	<ul style="list-style-type: none"> • Emissions reduction strategy in a broader national context. • As a national test-bed • As first mover and to attract investment • Positioned as being about green growth • Reconfiguration of the built environment through a suite of technological interventions. ...
Organising Retrofit	<ul style="list-style-type: none"> • Demonstration, experimentation and communication. • Creation of new frameworks for governing CRs and retrofit. • Bundling up types and sites of buildings. • Dominance of technology-based responses. • Constructing modes of financing retrofit. • Buildings skills and supply chains. • Monitoring and measuring retrofit.



What the challenges are...

National government and retrofit

“The policy goal is one of the strongest in Europe, but there is a massive implementation gap due to the governance systems in place in the UK”.

“There is a lack of consistency in structures that exist to implement projects and activities, with short termism existing both in projects and the structures created to supply those projects. This also prevents the collection of results in terms of what works and more importantly what does not work; no project ever fails”.

Local authorities and devolved government

“The council has tended to lack the funding for systemic retrofit activities of its housing stock, with large structured investments more sporadic and emergency and essential repairs being more common”.

“The effort has been in getting everyone to cooperate”.

“Not sure how long the LCEA will last, as long as it has the support of high profile local political actors”.

“There is a lack of data across a number of areas, which prevents a better understanding of the true costs and benefits for development”.



5. Urban Retrofit IN City-Regions

Characterising Retrofit	<ul style="list-style-type: none"> • ‘Bottom-up’ • Address local priorities – local context • Socio-cultural
Negotiating Retrofit	<ul style="list-style-type: none"> • Wide range of ‘retrofit’ projects, initiatives, schemes in C/Rs. • Initiatives largely developed by neighbourhood or place-based groups, organisations, businesses and individuals. • Seek to reconfigure local contexts - embedded in local contexts.
Elements of Retrofit	<ul style="list-style-type: none"> • Promote economic development through carbon reduction. • Reduce the carbon footprint of a town, and promote ‘sustainability’. • Vehicle for education, out reach and building refurbishment. • As part of wider processes of building community engagement. • Many motivations for community retrofit.
Organising Retrofit	<ul style="list-style-type: none"> • Diversity of contexts. - Different level of capacities. • Broad range in scale and scope of community retrofit initiatives. • “Making communities relevant again”. • Triggering community initiatives - individuals disposed to doing so. • Limited resources which requires finding new ways of working. • Connecting communities - creation of organizations & mechanisms. • Limits to bounding community responses



Transition Towns: From Oil Dependence to Local Resilience In the Mad River Valley

A Community Discussion

Transition Towns is a vibrant, grassroots movement that seeks to build community resilience in the face of such challenges as peak oil, climate change and economic crisis. It entails a promising and positive way to prepare communities for these challenges while creating a future that is abundant, fulfilling, equitable and socially connected. Join us for an evening of information and discussion about Transition Towns and specific projects we might do in the Mad River Valley.

Please Join Us for the discussion at:

Waitsfield Elementary School
Tuesday, June 1st from 7 to 9pm

Sponsored by the Valley Futures Network and The Carbon Striders

If you have any questions, contact:
Jill Ance at 956-9974 or jance@jmay.net

What the challenges are...

Community groups

“There is a lot of misunderstanding, mistrust, lack of information and misinformation around the retrofit activities (retrofit in its broadest interpretation)...”.

“Community groups have to interact with planners, MCC, contractors etc”.

“There has been a significant reduction in the amount of funding that is being made available. The reduction in funding and subsequent high profile activities has reduced the number of people interested in participating in activities, people can be fickle...When changes happen in people’s lives, the voluntary activities are the first to go”.

**Business and
business groups**

“The funding regime for activities is time dependent. Sources of funding includes the EU and national government. This means that project type activities are undertaken. This limits the activities being undertaken, creating a project focus for activities which can result in numerous pilots”.

“Participation from different actors is limited”.



7. Towards Urban Retrofit WITH City-Regions

Systemic and Piecemeal Approaches Compared

Systemic	Feature	Piecemeal
System/Network Wide	<i>Focus</i>	Projects and Experiments
Coordinated	<i>Governance</i>	Ad hoc
Retrofitting and New Build	<i>Scale</i>	New build
Long Term Commitment	<i>Time</i>	One-off-Episodic
Multi-actors	<i>Actors</i>	Inside Project
System Change	<i>Key Indicators</i>	Project Completion



8a SURF-Arup Framework, Stage 1

SURF-ARUP FRAMEWORK STAGE 1: The Context

Aim: To gather relevant data and convert that into intelligence so that an assessment can be made of the current level of spatial distribution of assets, quantity, quality, use, accessibility and connectivity.

Key Questions	Potential Evidence Base	Key Issues
What critical infrastructure currently exists and who provides it?	Utility providers; consumer and pressure groups; transport providers; consultancies and university research.	Critical infrastructure provision.
What quantity & how is it distributed?	Utility providers; consumer and pressure groups; transport providers; consultancies and university research; builders and home agencies and developers.	Critical infrastructure quality.
What are the pressures on critical infrastructure?	As above, including environment agencies; resident groups; small and medium business; multi-national business and voluntary sector.	Critical infrastructure capacity.
What challenges do these pressures pose for current capacity?	Local and city governance authorities, drawing upon strategic planners and regional and national understandings where applicable.	Critical infrastructure pressures.
What connectivity and cost issues are raised?	As above, including research capacity in organisations, including universities.	Critical infrastructure systems fit for purpose.
How is network provision, as a whole, currently managed?	Regulators and developers and resident and consumer groups.	Critical infrastructure management style, provision and consequences.
What are the growth targets in terms of housing, economy, environment and population and what demands are then placed on infrastructures?	Current policies and evidence base plus above.	An analysis of aspirations and the implications its raises for the provision of critical infrastructure.
Does capacity meet standards and growth targets?	As above.	Comparison of flash points between capacities and growth targets.



8b SURF-Arup Framework, Stage 2

SURF-ARUP FRAMEWORK STAGE 2: The Strategic Landscape

Aim: To understand the extent to which current strategies and implementations of infrastructure provision are joined up across the city and with its surrounding areas and transport links, as well as with economic, spatial, environmental and social priorities.

Key Questions	Potential Evidence Base	Key Issues
<p>Is there a well developed and communicated critical infrastructure strategy?</p> <p>What strategies, which cover relevant scales of action, currently reference critical infrastructure and what are they designed to achieve and according to what outcomes?</p> <p>What programme activity and priorities exist in the city that are designed to implement critical infrastructure?</p> <p>Who are the key stakeholders? Are their views and priorities regarding critical infrastructure planning and investment well understood?</p> <p>Are all relevant stakeholders engaged in strategic processes in order to inform their effectiveness?</p>	<p>Utility providers; consumer and pressure groups; transport providers; small and medium business; multi-national business; voluntary sector; consultancies and university research.</p> <p>Local, city, regional and national government; city and regional economic strategies; spatial, transport, waste, flooding, housing and energy strategies.</p> <p>Sustainable development strategies; local and city government and resident groups; role of commissions, organisations and institutions involved in delivery.</p> <p>Utility providers; consumer and pressure groups; transport providers; small and medium business; multi-national business; voluntary sector; pressure groups; resident groups; consultancies and university research.</p> <p>See above.</p>	<p>The extent to which there is joined up thinking in the provision of critical infrastructure challenges and delivery.</p> <p>The extent of strategic alignment across different areas of activity and whether these areas cross-reference each other in order to inform joined-up actions. Spatial, temporal and thematic understanding of priorities.</p> <p>An understanding of current delivery mechanisms for implementing and evaluating the effectiveness of strategies, along with an evaluation of the complementarity and duplication of functions.</p> <p>Identification of spatial distribution of opportunities related to future development (e.g. regional centre, regeneration areas, planned allocations for housing and industry)</p> <p>Identification of spatial distribution of need related to environmental improvement.</p> <p>A working consensus sufficient to orientate strategies that enable the assessment of effective and joined-up actions.</p>
<p>Where are the potential synergies and conflicts in strategic terms between critical infrastructure and planned interventions?</p>	<p>As above.</p>	<p>Identification of where the critical infrastructure agenda can be most rapidly progressed and where further work is required to bring agendas together in a more joined up strategic manner. In addition, links to wider social challenges and issues – low income households, economic opportunities and cultural diversity.</p>

8c SURF-Arup Framework, Stage 3

SURF-ARUP FRAMEWORK STAGE 3: Developing Capacity and Capability

Aim: To understand where the current gaps in capacity and capability lie and then create the opportunities for improved planning and investment in critical infrastructure.

Key Questions	Potential Evidence Base	Key Issues
How are resources currently distributed spatially? Where is investment planned?	Investment plans, economic data, utilities, government surveys and commissioning of research (consultancies and universities). Business plans for relevant agencies and authorities – including utilities; housing agencies and associations; developers; business districts and representatives.	Data (information) that is already held and what is needed to fill the gaps to generate understanding (intelligence) that informs and assesses subsequent investments and plans. Where investment is currently targeted, how and why and with what effects in relation to strategic priorities in terms of social inclusion, growth and environmental impact.
How do economic plans relate not to social and environmental aspirations and critical infrastructure provision and planning?	Strategic plans; utility provider intelligence; diverse resident listening forums; commissions and organisations with responsibility for implementation; local, city, regional national government and agencies in the city, plus business organisations.	Future investment priorities related to investment potential and opportunities to enhance economic offer and quality of life where development/investment is planned.
Are quantity and quality standards clear and joined-up and if so, are they effective in outcome?	Existing targets, milestones and quality standards; regulatory authorities; local, national and regional government/agencies.	The extent to which critical infrastructures are meeting need through being coordinated without detrimental outcomes and how quality standards are linked across systems and sectors.
Where are the mismatches between distribution/quality and different needs and growth aspirations? What opportunities exist to create these connections for greater benefit?	Ecological auditing of infrastructural assets, linkages, barriers to systemic and sustainable provision and opportunities for development. Targets, data and then intelligence on overall environmental performance according to clear criteria of balanced growth against environmental and social objectives.	How the critical infrastructure agenda is integrated to economic growth, social cohesion and environmental outcomes. Opportunities identified for enhancing the existing network through absence of piecemeal changes and a clear move towards systematic measures, including demand management and environmental supply innovation.

8d SURF-Arup Framework, Stage 4

SURF-ARUP FRAMEWORK STAGE 4: Preparing for the Future

Aim: To develop and provide an active intermediary resource that makes it possible to identify, anticipate, stimulate and disseminate potential changes, threats and opportunities in critical infrastructure provision.

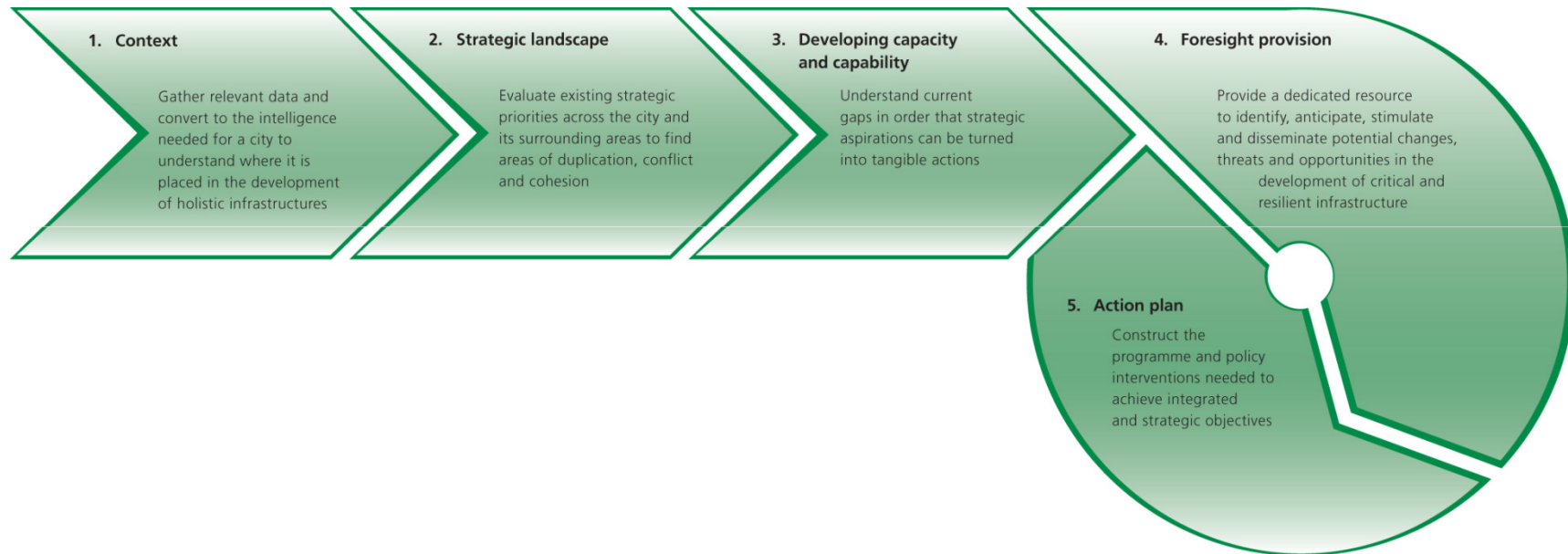
Key Questions	Key Actions	Outcomes
<p>Are projections for critical infrastructural growth clearly understood among relevant stakeholders?</p> <p>What is sustainable in terms of energy and water use, waste and transport flows?</p> <p>What are the priorities of the strategic forum?</p> <p>What analytic tools for visualising current trends and future prospects may be deployed to inform decisions?</p>	<p>Develop a critical infrastructure forum, with appropriate knowledge inputs, to advise and advocate in relation to future needs according to the ability to achieve integrated solutions to economic, social and environmental futures.</p> <p>Ensure that the forum is broadly representative of different groups and organisations with buy-in from utilities, government agencies at different scales, residents and consumer and pressure groups.</p> <p>To develop organisational implications relating to structure, communications, milestones, targets and feedback into current trajectories and practices of providers, regulators and consumers.</p> <p>To deploy futures exercises, produce reports, through a series of forums and workshops with key stakeholders, that inform decisions made concerning infrastructural delivery over different time periods.</p>	<p>A strategic forum is established with terms of reference and agreed membership that acts in an advisory and anticipatory role.</p> <p>A well understood sense of future trajectories and potential issues and pressures on critical infrastructure systems.</p> <p>A clear understanding of being a 'critical friend' to the city and its population.</p> <p>The provision of an intelligence capacity to enable a good understanding of current trajectories according to clearly stated strategies and values for quality of life in the city.</p>
<p>What are the points of overlap and potential conflict in strategic priorities?</p> <p>How can key groups and organisations, concerned with urban development issues, contribute to the effectiveness of provision in the city?</p> <p>How is the city placed in relation to other cities that are seeking the same aims and what comparative lessons can be learnt for its development?</p>	<p>An analysis of goodness of fit between different organisation and systems with responsibilities for infrastructure provision within the city, region and beyond.</p> <p>To provide workshops, listening forums and key reports and recommendations.</p> <p>Comparative learning programmes and good communications strategy influencing plan and practices.</p>	<p>A continually and clearly articulated understanding of areas of duplication and gaps to enhance the effectiveness of delivery and provision.</p> <p>Tangible assistance to the city in terms of its strategic aims for inclusion, sustainability and quality of life.</p> <p>Enhancing innovation in the city and placing it upon a national and international stage in its approaches to critical infrastructural issues, sustainability and approaches to quality of life.</p>

8e SURF-Arup Framework, Stage 5

SURF-ARUP FRAMEWORK STAGE 4: Preparing for the Future

Aim: To develop and provide an active intermediary resource that makes it possible to identify, anticipate, stimulate and disseminate potential changes, threats and opportunities in critical infrastructure provision.

Key Questions	Key Actions	Outcomes
<p>Are projections for critical infrastructural growth clearly understood among relevant stakeholders?</p> <p>What is sustainable in terms of energy and water use, waste and transport flows?</p> <p>What are the priorities of the strategic forum?</p> <p>What analytic tools for visualising current trends and future prospects may be deployed to inform decisions?</p>	<p>Develop a critical infrastructure forum, with appropriate knowledge inputs, to advise and advocate in relation to future needs according to the ability to achieve integrated solutions to economic, social and environmental futures.</p> <p>Ensure that the forum is broadly representative of different groups and organisations with buy-in from utilities, government agencies at different scales, residents and consumer and pressure groups.</p> <p>To develop organisational implications relating to structure, communications, milestones, targets and feedback into current trajectories and practices of providers, regulators and consumers.</p> <p>To deploy futures exercises, produce reports, through a series of forums and workshops with key stakeholders, that inform decisions made concerning infrastructural delivery over different time periods.</p>	<p>A strategic forum is established with terms of reference and agreed membership that acts in an advisory and anticipatory role.</p> <p>A well understood sense of future trajectories and potential issues and pressures on critical infrastructure systems.</p> <p>A clear understanding of being a 'critical friend' to the city and its population.</p> <p>The provision of an intelligence capacity to enable a good understanding of current trajectories according to clearly stated strategies and values for quality of life in the city.</p>
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Further Information

SURF Packs

SURF Website

<http://www.surf.salford.ac.uk>

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